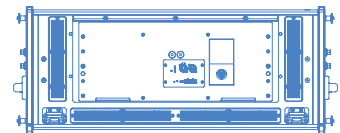
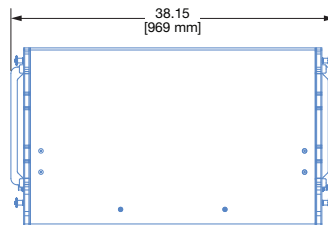
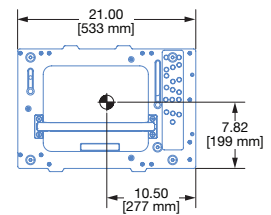
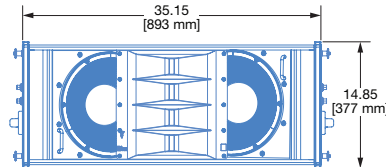


LYON™ Linear Line Array Loudspeaker



The self-powered LYON™ linear line array loudspeaker is a member of Meyer Sound's LEO® family of linear loudspeakers, designed to reproduce audio faithfully with tremendous power and clarity, without coloring the sound, even when pushed to the limit. LYON delivers the same headroom and precision as the acclaimed LEO-M™ with the same cutting-edge technology housed in a lighter and more compact cabinet.

Optimized rigging and self-powered configuration streamlines both setup and breakdown for LYON systems. LYON is ideal for medium- to large-scale array applications that do not require the extreme long-throw capability of LEO-M.

For greater flexibility, LYON is available in three models: LYON-M for primary array coverage, LYON-W for wide coverage, and LYON-WXT for wide coverage with extended vertical coverage. Use LYON-W in LYON arrays when applications require wide coverage, such as at the bottom or in the middle of primary arrays, or even at the top of outfill arrays. Use LYON-WXT when applications require wide coverage with greater vertical dispersion, such as at the bottom of extremely curved arrays or with installations that cannot use frontfill loudspeakers. Because LYON-W and LYON-WXT match the acoustical characteristics of LYON-M, transitions for horizontal coverage are seamless.

Pair LYON arrays with Meyer Sound's 1100-LFC low-frequency control element for bass reproduction. Drive entire systems with Meyer Sound's Galileo® GALAXY Network Platform, which provides 24 bit, 96 kHz audio, matrix routing, alignment, and processing for array components. By using the GALAXY Network Platform delay integration settings, it is possible to acoustically match all LYON models to LEO-M. With this approach, designers can use any LYON model for downfill and midfill at the bottom of LEO-M arrays, and as supplemental sidefill and outfill arrays in LEO-M systems.

To guarantee optimum system performance, including coverage patterns and linear peak SPL, design LYON systems with Meyer Sound's MAPP™

System Design Tool. This useful tool also helps verify rigging load ratings.

LYON's high-frequency section comprises two proprietary compression drivers coupled to a constant-directivity horn through a patented REM® manifold. The manifold's smooth radiating characteristics afford tight vertical coverage. The low-frequency section includes two long-excursion cone drivers, also proprietary, capable of withstanding high continuous output levels. Precise phase and magnitude alignment between low- and high-frequency drivers yields consistent and well-behaved system responses.

The unit's onboard power amplifier operates at nominal voltages from 85–134 V AC and 165–264 V AC at 50–60 Hz. TruPower® limiting ensures maximum driver protection, minimizing power compression while yielding high constant output under high continuous and peak power conditions. A single, field-replaceable module located on the rear of the cabinet houses the amplifier, control electronics, and power supply.

Meyer Sound's RMS™ remote monitoring system module comes standard with all LYON loudspeakers and provides comprehensive monitoring of system parameters on a Mac® or Windows®-based computer. Convenient XLR 5-pin connectors allow the use of composite cables carrying both RMS and balanced audio. XLR 3-pin audio connectors are also available.

LYON offers intuitive rigging with captive GuideALinks™ that users can set to the desired splay angles while cabinets rest in caster frames. A range of available rigging accessories make LYON a versatile solution for a variety of applications.

Meyer Sound constructs the LYON cabinet of premium multi-ply birch and coats it with a slightly textured black finish. A powder-coated, hex-stamped steel grille with acoustical black mesh protects the unit's drivers. Other options include weather protection and custom color finishes for fixed installations and applications with specific cosmetic requirements.

FEATURES AND BENEFITS

- Available in three models for greater flexibility: LYON-M for primary array coverage, LYON-W for wide coverage, and LYON-WXT for wide coverage with extended vertical coverage.
- Integrates seamlessly with Meyer Sound's LEO-M line array loudspeakers, and the 1100-LFC and VLFC low frequency control elements.
- Delivers high peak power output with exceptional linearity and transient reproduction at any operating level
- Offers simplified setup and increased reliability via self-powered design

APPLICATIONS

- Medium- to large-scale applications
- Arenas, performing arts centers, theaters, churches, and other fixed installations
- Touring sound reinforcement
- Downfill, midfill, sidefill, and outfill for LEO-M systems

ACCESSORIES AND ASSOCIATED PRODUCTS

MTG-LYON Top Grid: With some restrictions, flies up to 22 LYON cabinets at a 5:1 safety factor and BGV C1; accommodates a variety of pickup configurations with six pickup points; includes attachment points to accommodate brackets and adapters for lasers and inclinometers. Always use MAPP to verify rigging load ratings.

MVP Motor Vee Plate: Attaches to MTG-LYON (and all other LEO family grids) and fine tunes horizontal aim of LYON arrays.

RPP-LEO-M Rear Pull-up Plate: Helps when assembling large arrays with wide splay angles by providing pull-up (with a motor) to expand the array's splay angles during installation, making insertion of the blue locking pins easier.

MTF-LEO-M/LYON Transition Frame: With some restrictions, flies up to nine LYON cabinets at a 5:1 safety factor and BGV C1 below LEO-M arrays for downfill; includes rear attachment points for pull-back.

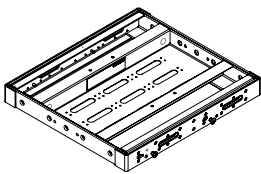
MTF-LYON/LEOPARD Transition Frame: With some restrictions, flies up to ten LEOPARD cabinets at a 5:1 safety factor and BGV C1 below LYON arrays for downfill; includes rear attachment points for pull-back; collapsible for easy transport on top of LEOPARD stacks.

PBF-LYON Pull-back Frame: Attaches to the bottom cabinet of LYON arrays and provides pull-back for extreme array downtilt; also facilitates pull-up to expand the array's splay angles during installation, so users can more easily insert the blue locking pins.

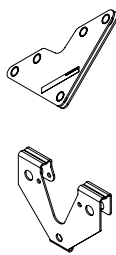
MDM-5000 Distribution Module: Offers convenient power distribution and flexible routing of audio, AC power, and RMS to loudspeaker arrays.

MCF-LYON Caster Frame: Safely transports up to four LYON cabinets, making it easy to assemble and disassemble arrays in blocks of four cabinets. Durable nylon covers for stacks of four units are also available to ensure the LYON is completely road ready.

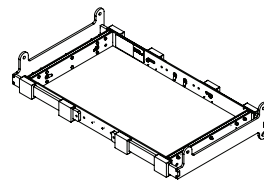
Galileo GALAXY Network Platform: The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.



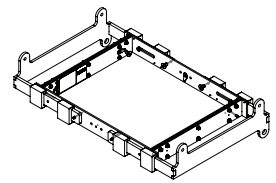
MTG-LYON Top Grid



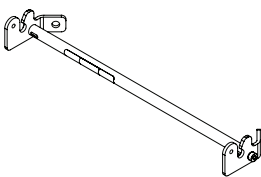
MVP Motor Vee Plate (top)
RPP-LEO-M Rear Pull-up Plate



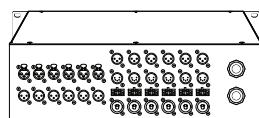
MTF-LEO-M/LYON Transition
Frame



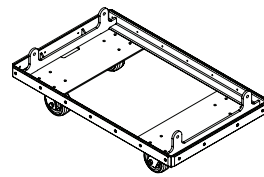
MTF-LYON/LEOPARD Transition
Frame



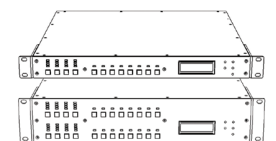
PBF-LYON Pull-back Frame



MDM-5000 Power and Signal
Distribution Module



MCF-LYON Caster Frame



Galileo GALAXY Network
Platform

SPECIFICATIONS

ACOUSTICAL ¹	LYON-M	LYON-W	LYON-WXT
Operating Frequency Range ²	55 Hz – 16.5 kHz		
Phase Response	80 Hz – 16 kHz ±30°		
Linear Peak SPL ³	143.5 dB with crest factor >17.5 dB (M-noise) , 137.5 dB (Pink noise), 140 dB (B-noise)	143.5 dB with crest factor >17.5 dB (M-noise) , 136.5 dB (Pink noise), 138.5 dB (B-noise)	143.5 dB with crest factor > 17.5 dB (M-noise) , 136.5 dB (Pink noise), 138.5 dB (B-noise)
COVERAGE	LYON-M	LYON-W	LYON-WXT
Horizontal Coverage	90°	110°	110°
Vertical Coverage	Varies, depending on array length and configuration; LYON-WXT has extended vertical coverage.		
TRANSDUCERS			
Low Frequency	Two 12-inch long-excursion cone drivers; 4 Ω nominal impedance		
High Frequency	Two 3-inch diaphragm compression drivers coupled to a constant-directivity horn through a patented REM manifold; 16 Ω nominal impedance		
AUDIO INPUT			
Type	Differential, electronically balanced		
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection		
Connectors	XLR 5-pin female input with male loop output; XLR 3-pin female connectors available to accommodate only balanced audio (no RMS signals)		
Input Impedance	10 kΩ differential between pins 2 and 3		
Wiring ⁴	Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal - Pin 4: RMS Pin 5: RMS Case: Earth ground and chassis		
Nominal Input Sensitivity	0 dBV (1 V rms) continuous is typically the onset of limiting for noise and music		
Input Level	Audio source must be capable of producing of +20 dBV (10 V rms) into 50 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker.		
AMPLIFIERS			
Type	3-channel complementary MOSFET output stages (class AB/H bridged)		
Total Output Power ⁵	8500 W peak		
THD, IM, TIM	< 0.02%		
Cooling	Two ultra high-speed primary fans; two ultra high-speed reserve fans		
AC POWER			
Connector	powerCON 32		
Automatic Voltage Selection	95–125 V AC, 50–60 Hz; 208–235 V AC, 50–60 Hz		
Safety Rated Voltage Range	100-240 V AC, 50–60 Hz		
Turn-on and Turn-off Points	Turn-on: 85 V AC; Turn-off: 134 V AC; Turn-on: 165 V AC; Turn-off: 264 V AC		
CURRENT DRAW			
Idle Current	1.2 A rms (115 V AC); 0.6 A rms (230 V AC); 0.7 A rms (208 V AC)		
Max Long-Term Continuous Current (>10 sec)	11.2 A rms (115 V AC); 5.6 A rms (230 V AC); 6.2 A rms (208 V AC)		
Burst Current (<1 sec) ⁶	15.4 A rms (115 V AC); 7.5 A rms (230 V AC); 8.2 A rms (208 V AC)		
Maximum Instantaneous Peak Current	45 A peak (115 V AC); 23 A peak (230 V AC); 25 A peak (208 V AC)		
Inrush Current	< 15 A peak		

SPECIFICATIONS, CONT'D.

RMS NETWORK	
	Equipped with two-conductor, twisted-pair network; reports all amplifier operating parameters to host computers
PHYSICAL	
Dimensions	W: 38.15 in (969 mm) x H: 14.85 in (377 mm) x D: 21.00 in (533 mm)
Weight	199 lbs (90.3 kg)
Enclosure	Premium multi-ply birch, slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with acoustical black mesh
Rigging	End frames with captive GuideALinks secured with 0.4375 in x 0.090 in quick-release pins that allow 0.5°–9° splay angles (8°–15° splay angles support with LYON WXT); Detachable side handles

NOTES

- Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Linear Peak SPL** is measured in free-field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50-degree C ambient temperature is <2 dB.
M-noise is a full bandwidth, (10Hz–22.5kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB. The presence of a greater-than (>) symbol with regard to crest factor indicates it may be higher depending on EQ and boundary loading.
Pink noise is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.
B-noise is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.
- Pins 4 and 5 (RMS) only included with XLR 5-pin connector that accommodates both balanced audio and RMS signals.
- Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, linear, low-distortion, line array loudspeaker. Its transducers shall include two 3-inch diaphragm compression drivers coupled to a constant-directivity horn through a patented REM manifold, and two 12-inch long-excursion cone drivers.

The loudspeaker shall incorporate internal processing and a 3-channel class AB/H bridged amplifier with complementary MOSFET output stages. Protection circuits shall include TruPower limiting. The audio input shall be electronically balanced with a 10 kΩ impedance and accept a nominal 0 dBV (1.0 V rms) signal (+20 dBV to produce maximum SPL). Audio connectors shall be XLR 3-pin, female and male, accommodating balanced audio, or XLR 5-pin, accommodating both balanced audio and RMS.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range shall be 55 Hz–16.5 kHz; phase response shall be 80 Hz–16 kHz ±30 degrees; linear peak SPL shall be 143.5 dB with crest factor >17.5 dB, measured free-field with M-noise at 4 m referred to 1 m.

The internal power supply shall perform EMI filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 100, 110, or 230 V AC line current at 50–60 Hz. UL and CE operating voltage ranges shall be 95–125 V AC and 208–235 V AC at 50–60 Hz. Current draw during burst (< 1 sec) shall be 15.4 A rms at 115 V AC, 7.5 A rms at 230 V AC, and 8.2 A rms at 208 V AC. Current inrush during soft turn-on shall not exceed 15 A at 230 V AC. The AC power connector shall be a powerCON 32. The loudspeaker shall include an RMS remote monitoring system module.

Components shall be mounted in an optimally tuned, vented enclosure constructed of premium multi-ply birch and coated with a slightly textured black finish. The front protective grille shall be powder-coated, hex-stamped steel with acoustical black mesh. Dimensions shall be 38.15 in (969 mm) wide x 14.85 in (377 mm) high x 21.00 in (533 mm) deep. Weight shall be 199 lbs (90.3 kg).

The loudspeaker shall be the Meyer Sound LYON.